NPDES Permit Number: MAR10D585

Project Name:	**Route 62 Roadway Resurfacing and Reconstruction**
Project Address:	Route 62 Concord, Massachusetts
Project Proponent:	**Town of Concord Public Works/ MHD**
Report Prepared By:	Mary Trudeau, Environmental Consultant
Date of Report/Site Visit:	October 30, 2009

Weather this work week was seasonable with significant rainfall on October 28, 2009. At the date of my visit on October 23, 2009, it was apparent that work had progressed throughout the week. Work on drainage has continued, with many of the catchbasin and manhole structures being uncovered or reset. Curbing work is ongoing, and sidewalk grading along portions of the route continues. The following photo shows one of the sidewalk work areas locatead above wetlands on the north side of Route 62. Please note that the work area is cut into the shoulder of the roadway, with a protective berm above the erosion control fencing, visible below:

While catchbasin liners are not consistent throughout the site, I only found one open structure in an area likely to receive sediment laden flows due to current grading. The following photos show a typical catchbasin grate along the work route, and the photo on the right shows the basin of concern at approximately station point 25+75, on the north shoulder of Route 62. :

Two weeks ago, the contractor rebuilt the outfall on the north side of Route 62, located at station point 23+25. At that time I noted that while the shoulder has been rebuilt and is relatively stable, the work resulted in the deposition of fine silty sediment within the area between the culvert and the down gradient erosion controls. At my visit this week, I noted that the contractor had cleaned the channel, and installed crushed stone below the outfall. The following photo shows the improvements made in this area :

And the photo below shows the top of the headwall and the slope below the roadway. I would recommend that the contractor complete this shoulder work to minimize the deposition of material to down gradient areas:

I continue to have some residual concern with the outfall at station point 15+00, on the north side of Route 62. With current pavement grading, the outfall does not appear to be receiving flows from catchbasins, but as noted in earlier reports, there has been some historic discharge of sediment to downgradient buffer zone and wetland resource areas. While the accumulations are not significant, the contractor should send a laborer to rake and remove any deposits of material. The following photo shows this area on October 18, 2009:

As noted in earlier reports, I am concerned with the upcoming detailing of the slope adjacent to either end of the easternmost retaining wall. This wall is located at approximately station point 27+50, on the south side of Route 62. I have spoken with Alan Visco of EH Perkins Construction and noted that I am concerned that the work should include stone and hand work to stabilize the area at either end of the wall. The contractor should insure, particularly on the eastern end of the wall (left hand photo below) that the materials used to stabilize the slope utilize the erosion controls for support. The toe of the finished slope should be set, and stabilized, at the back side of the retaining wall, and should not encroach onto the down gradient silt fence barrier. The following photo shows the areas of concern, and the second photo shows the clarity of the downgradient impounded waters within the wetland:

Also noted in earlier reports, Mrs. Sulewski, a condominium owner on Cranberry Lane noted that a tree fall at the south side of Route 62, at approximately station point 25+75 has fallen into and across her yard. Alan Visco and Minot Wood of EHPerkins Construction have determined that the tree fall is within forty feet of the centerline of the road (and is their responsibility) and that it will be cut and removed when the tree cutting crew returns to the site. The following photo shows the tree roots within the job locus:

In summary, the following is a list of tasks that should occur at the end of each work day, and/or after any rain event, as well as those tasks that should be done this week in response to this report:

1. As catch basins are cut out of the newly paved areas, the contractor should install liners when unstabilized slopes will discharge sediment to the basins during rain events.
2. The contractor should address the sedimentation that has occurred down gradient of the drainage outfall at station point 15+00. Raking and hand work is the appropriate remediation.
3. The contractor should consider the slope treatment of either end of the retaining wall at station point 27+00, on the southern shoulder of Route 62, and should plan on hand work in the more sensitive areas.
4. The contractor should remove the tree fall at station point 25+75. It should be cut and removed from the site.
5. There is also a little pile of slash on the south side of the erosion controls at station point 28+25 (south side of Route 62) that should be pulled and disposed of off site. This was left by the tree cutters in the initial clearing of the site.
6. After a rain event, inspect each catch basin liner. Torn liners should be replaced; silted liners should be removed, cleaned and replaced.
7. In general, pavement adjacent to catch basins should be swept or shoveled to remove excess sediment deposits from the perimeter of the catch basins.
8. Excess sediment should be swept from the pavement in areas where sediment has been deposited during the work day. Brooms and hand shovels should be on site every day.
9. If there has been a rain event, the contractor should walk the length of the erosion and siltation control barrier and make necessary repairs, including the removal of sediment deposits from the erosion controls. A hand shovel and staple gun should be onsite to make these repairs.
10. In areas where work is located in close proximity to the erosion controls, the contractor shall make sure that any loose sediment, branches or debris that maybe piled against the straw wattles and silt fence is removed.

As noted in past weeks reports, the rough sequence of activities is roughly as follows:

1. repair and maintenance of the required erosion and siltation control barriers (ONGOING);
2. installation of signage and staging of the project (ONGOING);
3. survey work to establish the limits of the project (COMPLETED);
4. clearing and grubbing within the limit of work line (LARGELY COMPLETED);
5. construction of the various retaining walls along the roadway (COMPLETED);
6. removal and replacement or improvement of drainage structures and outfalls (ONGOING);
7. roadway reconstruction and resurfacing between the Assabet River at the Maynard Town Line to approximately Water Street, to the east (ONGOING).

Based on my site inspections this week, it is my professional opinion that with the repairs requested or noted above, the project will be in compliance with, both, the NPDES

permit and the Order of Conditions issued by the Concord Natural Resources Commission.

Mary Trudeau, Wetlands Consultant
October 31, 2009